

AVIATION

The Oldest American Aeronautical Magazine

OCTOBER 25, 1926

Issued Weekly

PRICE 15 CENTS



The best located airdrome in Europe—Tempelhof Field

VOLUME
XXI

SPECIAL FEATURES

NUMBER
17

THE FLIERS' ASPECTS OF AEROGRAPHY
THE OPERATIONS OF THE COLONIAL AIR TRANSPORT
THE DURABILITY OF METAL PROPELLERS

GARDNER PUBLISHING CO., Inc.
HIGHLAND, N. Y.

225 FOURTH AVENUE, NEW YORK

Entered as Second-Class Matter, Nov. 23, 1920, at the Post Office, at Highland, N. Y.
under Act of March 3, 1879.



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VOL. XXI NO. 17

Published every Monday

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GARDNER PUBLISHING COMPANY, Inc., Publishers

BUSINESS AND EDITORIAL OFFICES: 225 FOURTH AVENUE, NEW YORK

CABLE ADDRESS: AVIATION

Publication Office

HIGHLAND, N. Y.

Subscription price: Four dollars per year. Canada, for. Issued every Monday. Terms: cash in advance. Foreign, air dollars. Single copies, 15 cents. Entered as second-class matter Nov. 25, 1925, at the Post Office at Highland, N. Y., under act of March 3, 1979.



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A PREDICTION REALIZED



The New Curtiss "FALCON"

DURING the past several months, the first group of Curtiss "Falcons" to be delivered to the Army have been undergoing service tests in the hands of Air Corps pilots. As was foreshadowed when the "Falcon" won first prize in the Observation Competition at McCook Field, this new observation airplane has quickly gained favor with the flying personnel, who have found it much faster and more maneuverable than the present service type.

Powered with either the Curtiss D-12 or the Liberty motor; excellent from a maintenance standpoint; with a truly remarkable performance, the "Falcon" fulfills its advance indications of being the first observation type in service today - a worthy "big brother" to the Curtiss "Hawk", the standard service pursuit plane of the U. S. Service.

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VICE PRESIDENT

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MANAGER

GARDNER BROTHERS

BUSINESS SERVICES

VOL. XXI

OCTOBER 25, 1926

No. 17

AVIATION

W. LAMARCA LAFAYETTE

EDITOR

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FRANK H. GREEN

CONTRIBUTORS

The Air Mail Pioneers

THAT THE Post Office Department intends eventually to hand over the operation of the Trans-Continental Air Mail Service to a private operator has long been well known. Announcements to this effect have been made by Postmaster General New on several occasions and his intention of his plans in this connection only the other day merely go to confirm this fact and serve to indicate that the proposal is being given considerable thought at this time.

The idea is an excellent one. There is no doubt that it will eventually be very much better to have the Trans-Continental Air Mail Service operated by a reliable private company than, as at present, by the Government. In the first place, the Post Office Department has never operated its own mail carriers, and there is no real reason why it should do so under normal circumstances in the case of air transportation. Secondly, the handing over of the New York-Pennsylvanian air mail service and the New York-Chicago night air mail to a private operator will represent a reduction in Government expenditure which must eventually offset the temporary increase, from the standpoint of its surface, the operation of these two all important trunk air mail routes, to private enterprise will mean that they will become of greater utility to the business public since under private operation, passengers and express will eventually be carried, whereas under Government operation it would not be possible for the service ever to become more than a mail system.

But, in the instance of finding the satisfactory operator of the Nation's new World-famed Trans-Continental Air Mail Service, Postmaster General New has no small task, for upon his choice of a contractor rests the responsibility of securing the efficiency of a service which will become of very real importance to the Country's business. When the Department relinquishes this service, it will be turning over the last link in the history of one of its greatest triumphs. Seldom has an organization, either Government or business, carried through an undertaking with such success. The Post Office Department has been a pioneer in commercial aviation not only for this Country but for the World, for the respective unaccounted groups of all the nations have taken cognizance of the activities of the Air Mail Service of the United States Post Office Department. No small amount of credit for the pioneering work which has been done is due Col. Paul Henshaw, formerly Second Assistant Postmaster General in charge of the Air Mail Service, and his general manager of the N. A. T., while the Hon. Irving Glover, the present Second Assistant, has brought renewed vigor and life to the operation of this pioneer air service.

In a recent statement regarding the service made by the Post Office Department, it is very rightly stated that:

"It is felt that the work of the Department in this direction has pushed commercial flying in America several years ahead." This achievement is to be cherished and the Postmaster General is to be commended upon the fact that in a moment in the history of forwarding the operation of the Country's backbone air mail service over to a private organization. The Postmaster General wishes to retire from air mail operations but fully realizes the obligations his Department has undertaken.

Modified Regulation

THERE HAS been no urgent remedial action that has been considered with such genuine consideration as the new regulations which have been formulated by the Department of Commerce. When they were first issued, a group of amendments was heard in the whole aviation community. As we went out, they were unduly made, drafted and in many ways very harsh. But the publication of the whole proposed measures in Aviation has stirred those who should be interested and it is gratifying to note that so much satisfaction has been expressed that a completely new and much less severe code is being prepared. All branches of the aircraft industry, as well as the technical experts have come to the front with criticism and suggestion. And what is equally pleasing is the attitude of John Roy MacDonnell who has written a letter to secure all the best advice that was available before modifying the rules.

The above is stated so that those who have written letters to this publication making constructive suggestions will know that these letters have not been published because so many suggestions that were made are now to be adopted in the reform that will soon appear. It is that draft that will have to be smoothed with the greatest care and caution. If the new regulations do not come up to the expectations that have been raised, it will be due to the fact that the parts of the letter that have been revised that have in these suggestions which have not been covered.

The principal suggestion that has been made generally is that the rules be simplified and made clearer. There appears to be a tendency to wish to do too much at the start. It is strange that in classifying and promulgating rapidly, as aeronautics, a very simple and classic set of regulations would serve until extensive need for greater specialization.

Again, it cannot be too strongly urged, that this movement be watched with the greatest care. It will be too late to make suggestions when the regulations are promulgated by the Secretary of Commerce. Therefore one reason may expect that they will be left without of ever change so that they may act with full information.



The Curtiss Leaky (Pittsburgh) of the Colonial Air Transport. The plane carries the captain, N.A.A.S.

system, it was decided to use the Wright horizontal radial engine at the most economical for commercial air transportation. From nine observations of the engine as far observed from the engine room, it should be possible to operate the Wright Whirlwinds for 400 hr without overhaul. An auxiliary engine, however, coming in on a contract at the end of 250 hr or lower on different operating experience, has been set. Each engine is inspected every 250 hr, and even though and complete attention to the details of about 10% of the engine were longer, it would be possible to extend the inspection period to once every 100 hours, but due to the short run between Boston and New York, it is necessary to maintain the shorter inspection period. The Fokker Universal N.A.A.S. has been 100 hr. The N.A.A.S. has been 1500 hr, and the Curtiss Leaky N.A.A.S. has been 170 hr, without the slightest sign of engine trouble. These three Wright Whirlwinds are going to continue to operate until they have had at least 250 hr before an overhaul will be made.

In order to avoid the trouble in the between connections

at New England using air mail, the Colonial Air Transport will continue to operate on the new night schedule on the Eastern to New York run, covering over the night air mail, on the transcontinental route. To do this, it has been necessary for them to install a \$30,000 lighting system over the route. This will include several electric lighting stations at intermediate points and complete lighting facilities with B.B.T. 500 watt incandescent floodlights at the terminal airports. This system is being placed in service by the Colonial Air Transport in cooperation with the Department of Commerce, and it is expected that the Department will take over the operation of the night flying operation when funds have been made available.

Major Gen. John F. O'Rourke has taken active interest in the operations of the Colonial Air Transport, Inc. He is at the present time planning for an expansion and increase of service. Mr. Irving Blumberg, formerly President of the company, is Chairman of the Executive Board. J. T. Troupe, former Managing Director is Vice-President, Capt. E. L.



Executive of Colonial Air Transport. From left to right, John M. Trumbull (Governor of Connecticut), member of the Board of Directors, John F. Troupe, vice president, W. Irving Blumberg, Chairman of the Executive Committee.

Gail, Secretary, and Major T. O. Freeman of Hartford in Tennessee.

There will be no immediate change in the Board of Directors which includes Captain J. M. Trumbull of Connecticut, Chairman, Colonel John A. Hamilton, William A. Buckenberry, C. V. Victory, Howard Cawley, Harry Whitcomb, Jr., Colonel Leonard Haines, Major Leifland Spence, and Robert O. Thatch, Theodore Winkler and other prominent men.

At the present time technical developments for radio are proceeding from the ground to the airplane and from the airplane to ground stations, are under way. This will enable them in charge of operations to keep in constant communication with the pilot and radio working group has weekly reports and receiving information during the course of flight.

The affairs of the Bureau of Aeronautics in cooperation with the Colonial Air Transport make it possible for the Los Angeles, the Navy Airship from Cleveland, W. J., to make a series of flights over the New England coast to observe the Navy radio equipment stations so that they would be able to give accurate bearings from their shore stations, thus prove the Colonial plane flying facilities at all times during flight. Col. John A. Hamilton and J. T. Troupe of the Colonial Air Transport, Inc., were aboard the Los Angeles at flight observance.

Capt. Campbell Awarded Schiff Trophy

The Herbert Schiff Memorial Trophy for the year 1936, which was won by Capt. E. D. Campbell, U.S.M.C., was presented Oct. 20 to the winner by President Coolidge.

His trophy is awarded each year to the pilot, in the Navy or Marine Corps, who shows the highest number of flying hours for the year. Captain Campbell's flying time tallied 839 hr 50 min, not only a record for the Navy and Marine Corps but was the Army, and, according to officials of the N.A.A., the record for the world.



Capt. E. D. Campbell, U.S.M.C.

Captain Campbell's entire service is Vermont. He is 31 years of age, married and has two children. He received the degree of C.E. from the Norwich University in 1915. He served the Marine Corps April 7, 1917 and served with the Aviation Section Division in the Vought teacher at Bellows Falls, Chuteau Quarry, Elmer Mount and all major offices of American participation in the World War, until wounded Oct. 4, 1918. He arrived in France with the first U.S. transport to see and was on French soil. He returned to Marine Corps station July 1, 1921.

He was stationed at Pensacola, Fla. as student in 1921, instructor, 1922, Post Air Pilot, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 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The Fairchild FC-1 monoplane (Curtis OS-3)

run of the plane apparently owing not only to their leading effect but to the greatly increased lift coefficient of the resultant highly cambered surface.

Extensive flight tests have shown that for high speed the flaps should be set at from 2 to 4 deg. up and for best climb they should be neutral at ground level. As altitude is made, the least dragling need not be obtained with the flaps depressed as previously stated, reaching from 10 to 15 deg. at the ceiling—about 10,000 ft. The slowest landing speed is obtained with the flaps depressed 14 deg. in the glide and 20 deg. when on the ground. On this, of course, due to the cambering of the leading effect and ground turbulence effects. It has been found that a taking off with the flaps neutral in the run and down 6 deg. when actually leaving, the shortest distance was obtained.

Longitudinal Balance Constant

In order that the longitudinal balance of the plane be not in part by the alteration of the effective center of the wing by means of the flaps and the resultant change in the disposition of the center of pressure, mechanics have been provided whereby a change in the flap angle effects a change in the stabilizer setting. Consequently, the operators of the flaps get no extra requirements upon the pilot in controlling the machine.

The tail surfaces of the FC-1 are of steel tubing, fabric covered. The stabilizer is adjustable in flight by means of a hand lever on the right of the pilot's seat. This is done automatically from the automatic control of the stabilizer system with changes in flap setting. The manufacturer believes that this use of a lever for stabilizer adjustment gives definite, definite stabilizer position at a glance than does a wheel. The vertical

fin is offset in order to counteract propeller torque in flight. All elevator controls are dual.

The landing gear is of conventional design of the split-end type. The track is 90 in. and rubber cord shock absorbers are employed. Arrangements have been provided for the fitting of skis for winter flying if required and, furthermore, a provision having gear has been designed for this machine. This can be employed when at least 150 hp. is available in the engine. The propeller clearance is as much as 23 in. with the tail down and 16 in. in drag position, which, with the double side of the undercarriage, is a very important point in connection with landings upon rough ground with full undercarriage. The tail sled is sturdy and in a provision against an accidental landing, there is provided an auxiliary door for the protection of the cabin.

The Fairchild FC-1 which was at Detroit in the Rediffusion Test was equipped with a Curtis OS-5 engine of 90 hp. But the machine may be equipped with the Fairchild Constant engine of 100 hp.; the Curtis C-4, 150 hp.; the Hispano Saur, 150 hp.; or the Wright Whirlwind air-cooled engine of 300 hp. The OS-5 power plant is fitted with the Kinner-Brewster booster system, eliminating the danger of the fuel cracking in altitude. In addition to the regular throttle handle, an auxiliary throttle is provided in the cabin in the form of a button on the control stick, which is very useful in gliding or in climbing. The indicator is of the undercarriage. The entire machine capacity of 35 gal. is carried in the upper wing in a solid aluminum tank providing greater fuel of the aircraft completely. Seven gallons of gasoline are also carried in a reserve tank.

In the design of the machine, very careful consideration was given to problems of maneuverability, and reserve was made to the wheel based at the Greenwiche School of



Two structural views of the Fairchild FC-1. On the left, the forward part of the fuselage; on the right, the tail unit structure.

Aeronomics at New York University, under Prof. Alexander Kermán. The Curtiss 287 wing section which is employed has been modified and improved by design as plan fair and in increasing the surface in the tips. The design aimed at having different load distribution across the span, an ideal condition which, while it could not actually have been obtained in a wing of the form of that of the FC-1, has probably been approximated. The wind tunnel experiments showed the plane to have a very good L/D for the complete surface and the longitudinal stability is constant, the plane tending to cross the speed.

Wind tunnel tests directed towards a study of the lateral control characteristics have indicated that the aileron rubber moments are adequately powerful. With the aileron set at their maximum angles and in slow speed, which represents the worst condition for lateral control, it was found that the flying controls due to rubber were entirely adequate to balance and correct the adverse moments due to the ailerons.

Official Full Scale Tests

The full scale performance tests were carried out under the supervision of the staff of the Goddard School of Aeronomics, N. Y. University, with indicated instruments, etc. To measure the true landing speed, tests were carried out with a cinematograph attached to the wheel, which indicated



A diagram showing the main components in the Fairchild FC-1 when employed in a glider-like mode.

the resistance in a given time in giving areas as a leader. The plane has been down by a number of well known pilots and all agree as to its ease of control. With the OS-5 engine and two passengers in addition to the pilot one, he reported, as state of the fact that the first plane to be constructed in believed to be no less than 200 hp. equivalent. With the calculations of the Fairchild-Curtiss engine, of the cost now given, will be available and the full load at four passengers can be carried.

General Details

The basic characteristics of the OS-5 plane and the certified performance figures are as follows:

Wing (span total)	41 ft.
Wing (tip to tip)	31 ft. 6 in.
Wing (tip to tip) (chord)	40 ft. 6 in.
Wing (tip to tip) (chord)	35 ft. 6 in.
Wing (tip to tip) (chord)	35 ft. 6 in.
Wing (tip to tip) (chord)	35 ft. 6 in.



A front view of the Fairchild FC-1 with the wings folded, giving a very good view of the small change space required to lower the plane. Naturally, this is a very excellent view of a Fairchild FC-1 which is being and extremely in commercial flying.

Weights (light with water)	Weight
Empty	1000 lb.
Full (as per instructions of flight)	1200 lb.
Full (as per instructions of flight)	1200 lb.
Full (as per instructions of flight)	1200 lb.
Full (as per instructions of flight)	1200 lb.
Full (as per instructions of flight)	1200 lb.
Full (as per instructions of flight)	1200 lb.
Full (as per instructions of flight)	1200 lb.
Full (as per instructions of flight)	1200 lb.
Full (as per instructions of flight)	1200 lb.

Performance

Performance with OS-5 engine and 150 lb. load:

Maximum speed (1000 ft. alt.)	100 m.p.h.
Maximum speed (1000 ft. alt.)	100 m.p.h.
Maximum speed (1000 ft. alt.)	100 m.p.h.
Maximum speed (1000 ft. alt.)	100 m.p.h.
Maximum speed (1000 ft. alt.)	100 m.p.h.
Maximum speed (1000 ft. alt.)	100 m.p.h.
Maximum speed (1000 ft. alt.)	100 m.p.h.
Maximum speed (1000 ft. alt.)	100 m.p.h.
Maximum speed (1000 ft. alt.)	100 m.p.h.
Maximum speed (1000 ft. alt.)	100 m.p.h.

The above figures are based on the performance of the machine in the air. It is in general for production planes of this class.

The ground speed of the machine and the speed of the Fairchild Aeromarine Corp. was tested, with much success. The party included the pilots and the pilots of the Fairchild Aeromarine Corp.



A group of the ground crew and pilots of the Fairchild Aeromarine Corp.

A Trip over the Western Air Express

The Story of a Passenger on one of the Pioneer Passenger Air Services in the Country

By COL. THURMAN H. BANE

LAKE MEAD and Salt Lake both report weather clear, so a local "visibility estimated." This was cheering me, as I notified via my flying clothes, passengers to fly from Los Angeles to Salt Lake City, via Western Air Express, Inc.

The Douglas Air Mail plane with its reliable old Liberty engine was getting the half-hour warning up and going over passengers in one flight. During the interval I took a hasty survey of the facilities at this airport. A beautiful level field at least one mile each direction. The large hangar, one well equipped engine overhaul shop, and one radio station. In the hangar were three Douglas mail airplanes and one was out on the flag. I was informed that the company owned seven, the other three being at Salt Lake City. Very recently, three only were kept at each end of the line. The plan was to keep two at each station and send to go each day, and one had up for overhaul. No airplanes are kept at Lake Mead, and there is no hangar there—only facilities for just what the planes with gasoline, oil and water.

It was found desirable, however, to provide an extra airplane always available for emergency trips, such as this recently made by Major C. C. Maeder, the manager of the line, who flew a passenger over to Douglas, Arizona. He also flew Mead, Evans and With a portion of their way on their recent record-breaking round-trip flight.

The engine repair shop is provided with facilities for overhauling two engines per month, and the work must be thoroughly done as this company is getting 300 hr. between over-

haul out of their Liberty engines. They have been flying since April 15, 1925—112,000 miles in Sept. 1, with 130 per cent perfect operation—all said on time. One has no hesitation about flying as a passenger in such an outfit.

Mr. Cole, well known to all persons who passed through Salt Lake in the old days, is field chief at the Los Angeles airport.

It is perfectly evident that Mr. Ford has no corner on cheapness as this outfit is just as clean and orderly and efficient as the Ford Airport. This is no understatement of any successful organization.

Leaving Los Angeles

Just the hour of 5:00 was appointed and as I went out duty the U. S. Mail, I stood into my plane, which, by-the-way, is the Douglas mail plane in a most roomy and comfortable cockpit. The road, 15A is on this trip, is in front of me and below my feet, so also was my morning bag and suitcase. My passport is filed to me. I hope I won't have to see it. I tell Kelly the pilot if he wants me to jump to say so and out I go. I am not so sure the average lay passenger could get out of the plane in case it became desirable, unless one could drop the passenger like the machine lands on the Douglas planes. I am not convinced of the usefulness of this inevitable "last ditch" device. However, the location of the gasoline tanks in the lower wings on each side of the fuselage is fine.

We pushed off a few minutes late, about 5:35 a.m. There was no failure of baggage, waves of red rays, ringing of



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hills are finding of equal leaps to get in all. An accident is necessary disaster; the direction and force of the wind have so much to do with the slightest turn of the right bank there is nothing impossible to the initiated or too good to emphasize the time of departure. If the mail and passengers are stored and the engine is warmed up I believe the Mustang or Express might push off a few minutes earlier. [The next section of this article was written in the air—Edwin.]

We were quickly in the air but soon found it not so easy 180 ft. climb I should guess. There is nothing but dry scrub on toward the coast, but the few Bernardino Mountains are or through which we must fly are clearly visible. There is a dry mesa on the left and the Union Pacific tracks on the right as we head for Ojai. Two figures of the stretch out toward the mountains, revealing in the clear vision, the beautiful views elsewhere that add so much to the charm of Southern California. There are not more landing fields here as all the level and gently sloping ground is covered with orchards.

Approach to Redwood

For purposes of comparison I made a brief schedule of the Los Angeles flight which leaves Los Angeles at 7:01 a.m. daily. I have assumed, however, that for our purpose this time, the fastest between Los Angeles and Salt Lake, leaves Los Angeles the same time as the 7:45 a.m.

At 7:37 a.m. we crossed the dry river which flows out of a cloud canyon on our left. The mountains on the left are high and covered with trails and fire breaks. One trail leads up to a large "Y" that some redwood-like trees have formed as the rule of the mountain. We are flying very close to the mountains on the left now. We have been steadily climbing at about the same rate that the ground rises. This is Ojai time and at 8:01 a.m. we pass the highest peak on the left and ridge after ridge of mountains, blue and lavender in the morning air appear on the right. At 8:30 a.m. we cross a pine covered ridge—the summit—very close to the tops of the trees. It is surprising that the air can be so smooth in

appear dead ahead—a narrow strip of green—three minutes later we cross the Mojave River of the Nevada.

The country gets rougher. There are some areas looking good or better on our right and as the wind is coming from our right into these points there up the air. The old place



Passenger for Salt Lake City by Western Air Express waiting on

mountain and stream in this desolation, but it is quickly over. The desert is just marked showing evidence of clearing and attempts at cultivation.

Darkness is falling at 8:38 a.m. We have been in the air 55 miles, have covered 150 miles of the real journey—about 100 miles as we go the birds fly. The Los Angeles flight which left Los Angeles at the same time we did is just approaching Phoenix and has made about 32 miles. The standard 3500 ft. is 62 miles ahead of them.

I asked Kelly if the river we just crossed was the Colorado. He answers me that we cross the Colorado after we leave Los Angeles. He says that he has always known the desert better than the old prospectors who had lived on it most of their lives. When they are ahead of vehicles due to favorable wind they wonder of the course and look around. Usually this is when they most depend if they ever have to get down due to being forced off their course by storm or clouds they will be able to locate themselves quickly—at least they won't be as perfectly unknown country.

8:52 a.m.—A small settlement below us and, which interests me more, a big mountain square is in front of us. We are climbing to the mountains ahead are much higher than we are flying, almost 4000 ft. I guess this is "Clark Mountain" that I heard Kelly say was to have a house on it. The Department of Commerce has a man out now lighting the way between Los Angeles and Los Angeles. A new country home up at 8:58 a.m. It is more sleep and rougher than any we have seen, neither but mountains, nothing of them, ridge after ridge in every direction.

9:10 a.m.—Kelly starts going down into Los Angeles. There are some mountains dead ahead which must be Los Angeles. Now let us see what has happened to the Los Angeles flight which left Los Angeles the same time we did. We are approaching Los Angeles after 2 hr. in the air. The flight is 100 miles out of Los Angeles approaching Ojai, and has covered a distance of 35 miles, while we have made 315 miles—more or less about 285 miles ahead.

9:40 a.m.—Kelly starts going down into Los Angeles. There are some to the right of us and others to the left of us. The three or four on the left are below the most heavily forested hills we have seen. There are a bright clear sea. We see who has not seen them months before that they finally reach us where. At the North end of the cliff St. Charles arrives at 11,000 ft. the highest mountain in Nevada.

We must have been under in the air because it was cool and pleasant—now I feel the hot air of the desert, it is like flying



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Major C. C. Wooley, vice president and general manager of the Wasp, on the Express.

above the mountains. I expect later in the day it will be obscured by a little. Now the desert—order and miles of it, flat and nearly on the left with miles of barren mountains rising on the right. Below a beautiful mountain ridge and the straight lake are some ground direction. The only buildings visible are yellow redwood section houses. The outline of lower peaks reduced by better grades on the plateau seen from the air. At 8:15 a.m., three smoke stacks

Side Slips

By Robert H. Olsen

It is with great regret that we record the passing of another outstanding American radio personality. The beloved Aviator was taken into his grave in the flying field the other day when serious illness overtook the champion of C. C. Pyle, manager of "Red" (Chicago) Sox, Louisa, Vincent Williams and others, came along and offered us travel free dollars to be taken for a flight. After a heart-breaking debate with himself, as to whether or not he should give up his valued minutes for even such large sums of money, our man finally decided to the love of his life. He then set out purely and of course, for his life, as that day may be properly taken care of by his old aviator's comrades on the wings and the men on the control surface having developed slowly to an alarming extent.

According to the papers, a prize of one thousand dollars has been posted as a reward for the first boy or girl, under eighteen years of age, who pilots an airplane from New Providence to Boston. The prize seems to have been offered by the American Society for the Promotion of Aviation, which seems to be another one of "those things"—apparently organized for the sole purpose of giving a good time to some newspaper publicity. The offer probably will be a very safe one to make as it appears that "pilots must be over sixteen years of age." If this man, however, under the proposed seasonal regulations, it is an extremely safe offer, as these regulations require that all pilots must be over sixteen years of age.

The realization of this prize should excite us cordially the

credibility of my associates who present themselves from Georgia, New York and California. Bobby Jones, of Atlanta, Ga., was the "engineer you old pilot man!" for some time, and as far as we know, Vincent Williams, of New York, and Elton Wells, of California, never did grow up.

Just when we were beginning to think that we had the matter definitely settled and off the books, someone else comes along in the Oct. 11 issue of *Aviation* and claims to have defeated the first eleven slugs by airplane. If no number appears, this is the sixth eleven slugs that has been defeated for the first time in aeronautical history. It would have been quite a surprise of planes flying that fast over of them.

* * *

A friend of mine was in a recent hot fight for a new light airplane and reports that during the last half hour's flight, about a dozen of his and a pair of Long Island whiffers were consumed. His side claim this was not using the full capacity of either plane or pilot.

* * *

This month's prize for durability and endurance is herewith unanimously awarded to the Irish-Rover Motor Car Company's American representative, for his recent letter in which he attempts to tell us one of those fine facts. We also, are making perfectly for the house in concerned aviation, but do not expect to be in a position to consider any of them until they have been in full force for about three weeks.

* * *

Having said, for the first time, the problem of the airplane which was recently loaded successfully by means of a parachute, we are reminded of the caption occasionally used by the method profession. "The question was a matter, but the person died."



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AIRPORTS AND AIRWAYS

Riverside, Cal.

By J. B. Humes

As has been the case with the majority of cities, aviation is being recognized by the "slow but sure" process in Riverside. However, the response has been very encouraging. The Riverside Airport, with pilot license, C. Warren in charge, will soon have completed one year of active service as a non-spread air terminal, having been established by Mr. Warren in November, 1925. Warren is credited with having done much as a pioneer in the commercial side of flying in Riverside and has not numerous obstacles and problems in getting his end. At the present time there are five planes with headquarters at the airport and three pilots, Charles C. Warren, Clifford Martin and Wesley Gage, flying from the field.

Every effort is being made to finance equipment and equipment before the next season and, although many official items and plans are in need to make the field a first class one, financial matters are in some extent looking.

The present dimensions of the field, with levelled runway, are 508 ft. by 226 ft. The location is reasonable for a town field. It is situated on the Los Angeles-Boulevard (valley) highway, near the South Ave. River bridge and M. Robinson. It is half a mile from the business portion of Riverside and has a complete service station with light lunch counter and telephone directly across the highway.

Another Stolen Airplane

The Boston police are on the lookout for a stolen airplane, piloted by a man with a red leg and wearing a white hat. The plane was stolen from John P. Kelly, Kansas. Its description, with that of the pilot, is contained in a circular from Sheriff George Davis of Iowa, Kan.

"He will pay \$500 for return of the plane and \$250 for the name and location of the thief," said Sheriff Davis. The plane is of three-passenger type with 150 hp engine. The thief is a good pilot and "very tall," according to the Sheriff himself.

Colombian Air Service

An mail and passenger service between Guayaquil and Yuma, Colombia, established under a contract entered into between the Colombian Government and the Compania Colombiana de Transportes Aereos (Colombian-German Aerial Transportation Co.). A provision of the contract may be obtained from the Transportation Division by referring to Report No. 723-512.

Air Traffic Increases in Finland

Air traffic in Finland has shown satisfactory development during the month. By the end of July, the airplanes on the

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Hawkins-Bloodstock costs had earned 418 passengers, compared with 361 during the same season of 1935. Revenues on traffic on the Minneapolis-Rivers Falls line, it is probable that the total income for this year will amount to 3,000 passengers and 10,000 miles of mail. (Hawkins-Bloodstock, American Truck Company, Minneapolis, August 28, 1936, by mail.)

Swiss Air, Cal.

By Ned Smith

When Joe Klobasner, representative of Legation Bern, California, and Mrs. Margherita Spross, secretary of the Santa Ana Air Club, met John Klobasner, pilot of Martin's Airport, Santa Ana, recently, they told Klobasner that they were to organize a flying beetle with a great golden eagle.



The plane was at a height of 3,000 ft. when Klobasner said: "The bird has evidently understood to climb the steep climb. Bloodstock is with a surge for the plane. Klobasner turned the machine and the bird moved. Not wanting to risk death in an encounter with the steadily opened wings. Klobasner moved her up. The eagle started in pursuit. Klobasner floundered to cut corners on the bird to the ground. He did a hard one, wiggling to himself, a side-on and beyond, but still the bird continued its attack. At the 3,000 ft. level, the eagle made a rounded and determined effort. It struck one of the men of the plane, however, and broke in two. It curved upward for a moment and started to fly again. But before it stopped diving and commenced to drop after our wing to the ground.

Bloodstock got to the ground and started into his automobile. He found the eagle a mile from the highway. It answered his feet from one tip of its wing to the other. The rubber engine has had the best of the road and has placed it in the class where it occupies a place of prominence. Eagles are now in this section of the country and change many visitors on leaving this section will be pleased.

Cascadia, N. H.

Amateurism has been made by the Algonquin General that the state-owned mail, south of the National Guard camp-ground, will be stored, managed, maintained, because built, and an airport developed. A company for this purpose will shortly be incorporated. The proposed airport is in the Concord River district, and is considered an ideal spot for the project.

New York-New England Air Survey

Eight cities, including Albany, Boston, Buffalo, Hartford, New York, Rochester, New Haven, Springfield, Mass., through their Chambers of Commerce, or other civic organizations, took the first step on Sept. 17 toward establishing an air service for passengers and commerce in the Northeastern section of the United States. This was a preliminary step, with twelve planes, headed by Lieutenant Edward M. Brown, manager of the new Buffalo Airport, and H. Ralph Wilson, a member of the Aero Committee of the Buffalo Chamber of Commerce. This trip was undertaken to assess interest in the service and also to give the way for the best customer service.

Yukon Flying Aviation Tax

At the request of the Aviation League, the Yukon Government has imposed a tax in aid of aviation. Although the tax is called a voluntary tax, the method of collection is through the demand of an additional 50 per cent on income tax, when this is paid. Until the extra tax is paid, the strength for the payment of income tax is withheld.

Denver, Colo.

The Air Service Club of Denver held its first dinner at the winter season last Friday evening at its new club house at Leroy Field. This club which is made up of military and civilian pilots with a sprinkling of non-flying enthusiasts has not an example for similar clubs in other cities.

Organized less than four months, the club has a real club house completely furnished and fully staffed. It is open to all visiting aviators. The officers are designated as President, Flight Wing, Left Wing, Right Wing, and the members are called Space Parts. These will get together parties are being held.

Much activity is reported at the Algonquin Airport. A class of ten students are taking lessons and are progressing rapidly under Chief Pilot Vernon. The beautiful field outside of Colorado offers every day flying and the owners, who's a privilege to live in Colorado, holds good to report to flying.

Two Lockheed's which are now being test flown at the field, so the factory has increased production to the schedule. The production will be continued to one ship per day by spring.

Preparations for reentering Commander Byrd and his associates on their visit to Denver at the "Cockpit Club" are being planned by local N.A.A. officials and the Air Force Vice Club.

East Boston Airport, Mass.

The work on the first of the hangars to be erected at the East Boston Airport, construction of which was started Sept. 25, is moving rapidly. The larger of the two will be 175 ft. by 100 ft. with a main clearance 14 ft. high and 90 ft. wide. A crew of 30 men, under the direction of William E. Ashton, of William E. Ashton Co., Inc., New York City, who are building the hangar, are working on the work. The hangar is being erected for the Boston Airport Corporation, organized a year ago by Edward F. Warner, now Assistant Secretary of the State for Aviation.

The Colonial Air Transport, Inc., expects shortly to begin work on a hangar for its own use. This concern transports U.S. mail between Boston and New York City and plans to operate in its extensive passenger transportation.

New Haven, Conn.

The New Haven Air Transport, Inc., which is located on the eastern side of the harbor and 3,000 ft. south of the first bridge, will be suitable to visiting aircraft systems, according to a recent decision of the airport officials. The government has taken advantage of the offer and has issued a notice to this effect to local aviators.

The hangar is painted green, with "New Haven" in white on the roof. Three mooring loops and a runway are available. Handed gasoline and aviation oil can be obtained at the airport.

Spain Purchases Two Zeppelins

The largest Zeppelin ever constructed, which will cost \$6,000,000 pesos, and will be capable of flying from Berlin, Spain to Buenos Aires, has been ordered by the Republic of Spain to Germany, by the Spanish Government. It will undoubtedly be the largest of the world's fleet. Another Zeppelin, the Z-121, is said to be almost ready for the Spain-Australia service. It is driven by seven engines, has a radius of 180,000 sq. miles, is 258 meters long, 31 meters broad and is able to carry 35 tons.

Revised Air Mail Postage

A problem, not Oct. 5, from New York to Los Angeles, is a New York publication, except what is believed to be the highest postage paid on a single parcel transmitted by air mail. Air mail across the country is \$6 a pound. The total postage was \$77.13.

On Oct. 5, a parcel mailed in Philadelphia and destined for San Francisco cost \$156 in air mail postage, it being covered with 45 stamps.

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New Regular size Standard J.I. Airplanes with Govt overhauled OX5 motor installed	900.00
New Regular size Standard J.I. Airplanes with new OX5 motor installed	1200.00
New Regular size Standard J.I. Airplanes with 150 H.P. Hiss motor installed	1500.00
Used Standard J.I. Airplanes	\$650.00 to \$750.00
Reconditioned J.N.H. airplane, practically new OX5 motor installed	650.00

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be E. M. Smith, model D-4-C. Bob Bailey, s/o W. R. Ains
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SALE: New Canada, OX's motor, good looking, seven 25
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5:30 P.M. D. H. Brown, 611 East Maryland Road, Gary,
Pittsburgh, Pa.

Pilot wants position during winter months. Present occu-
pation instructor for Dornier Aerobus Service, Dornier, 15
Harold St. Johnson, 3222 Kumbier St., Dornier, Ill.

FOR SALE: Vought V-5T, three-place, finished white
Tanager, price \$2500.00. 7-10 trials on elevator ship. Also one
OX's Aero Star new, \$1200.00. Graham Lasker, 410 N. 3rd
Street St., Indianapolis, Ind.

FOR SALE: or trade on three-place or larger ship. Any
make considered. Practically new OX's, new OX's, stock of
Canada parts. Wanda, tires, radio, etc. Lloyd D. Davis,
Box 109, Glen, N.Y.

Light plane builders. Recent development. Complete set
appliance pattern. All light planes entered National Air Show,
Philadelphia. One dollar. Wadsworth, 27445, Hampshire
Court, Chicago, Ill.

Position wanted in Florida by flying boat pilot. Will work
on motorboats. Box 518 Atlantic.

WANTED: Plans, equipped with Wright Whirlwind motor.
Must be in first class condition. Will pay cash and not
quantity of price in right. Give particulars. E. M. Eiden,
307 N. Wilson St., Philadelphia, Pa.

FOR SALE: 2 used Martin commercial planes, model 78,
or best class flying condition, with spare engine and spare
replacing parts. No reasonable offer refused, as we need more
replacing parts. The Glenn L. Martin Company, Cleveland,
Ohio.

FOR SALE: A-1, Curtiss E-8 motor, completely re-
built, very good condition, with C-6 carburetor and bearings,
D-4's magnets, and propeller hub. Owner going South, needs
the money. Price \$1000.00. Section 141, s/o American
Bank Corp., Princeton, N.J., Marine Island, N. Y.

FOR SALE: Two 2000 motor, both for airplanes, one
Socata, one Socata, both with P-13 frame. First check or money
order for \$250.00 takes either. Oscar McWhorter, Earl Christ-
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In the Second Annual Airplane Reliability Tour

August 7th - 21st

Covering 2560 miles over ten States, starting and finishing at Detroit, Mich.

- First** —“Travel Air,” 4-seater, built by Travel Air Mfg. Co., Wichita, Kansas, carrying 600 lbs. contest load, average speed 124.5 m.p.h. Powered with one WRIGHT WHIRLWIND engine.
- Second** —“Airster,” built by Buhl-Verville Aircraft Company, Detroit, Mich., carrying 800 lbs. contest load, average speed 113.5 m.p.h. Powered with one WRIGHT WHIRLWIND engine.
- Third** —“Detroitter” built by Stinson Aircraft Corp., Northville, Mich., carrying 640 lbs. contest load, average speed 106.7 m.p.h. Powered with one WRIGHT WHIRLWIND engine.
- Ryan M-1, built by Ryan Airlines, Inc., San Diego, Calif., carrying 500 lbs. contest load, average speed 111.8 m.p.h. Powered with one WRIGHT WHIRLWIND engine.
- Ford 3-engine Airliner, built by the Airplane Division, Ford Motor Company, Dearborn, Mich. Powered with three WRIGHT WHIRLWIND engines.

National Air Races — Philadelphia, Pa.

September 4th - 11th

WRIGHT WHIRLWIND engines won twelve of the eighteen prizes they contested for.

Air Transport Race—First in Speed and Efficiency, “Wright-Bellanca”, powered with one WRIGHT WHIRLWIND engine, carrying 1607 lbs. contest load, average speed 121.53 m.p.h. Second in Speed and Third in Efficiency, Buhl-Verville “Airster” powered with one WRIGHT WHIRLWIND engine, carrying 1059 lbs. contest load, speed 119.97 m.p.h. Third in Speed, Ford 3-engine Airliner, powered with three WRIGHT WHIRLWIND engines, carrying 2666 lbs. contest load, speed 114.26 m.p.h.

Light Commercial Airplane Race—Trophy won by “Wright-Bellanca”, powered with one WRIGHT WHIRLWIND engine, carrying 1145 lbs. contest load, speed 121.36 m.p.h. Third in Speed and Efficiency, “Travel Air”, powered with one WRIGHT WHIRLWIND engine, carrying 666 lbs. contest load, speed 127.2 m.p.h.

Denver Mile High Air Meet

August 1st - 3rd

First place in Speed Race for over 100 H.P. planes won by Ryan M-1 powered with one WRIGHT WHIRLWIND engine.

First place in 5000 ft. altitude climb for over 100 H.P. planes won by Ryan M-1, powered with one WRIGHT WHIRLWIND engine.

First place—Best General Ship at Meet—won by Ryan M-1, powered with one WRIGHT WHIRLWIND engine.

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